

Work Order ID 71991

Friday, July 15, 2011 8:39:28 AM



Page 1

Item ID: D2891-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 2.25 Support

Start Date: 7/15/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 7/29/2011 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2891

Rev A11U/R

100

0.00



HAAS 1

HAAS CNC VERTICAL MACHINING #1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per Folio FA046 Tumble & Deburr

22 11-8-5
JL 11-08-08

20 0 PTO

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

22 11-8-5
JL 11-08-08

20 0

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

B.A 11/08/09

20 0

W/O: 71991		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11.07.15	130	No finish on part		N/A		CP 11.07.15 OS1042	N/A

Part No: D2891-1 PAR #: N/A Fault Category: MACHINING NCR: Yes No DQA: 1A Date: 11.08.17
 Resolution: Scrap Disposition: Scrap QA: N/C Closed Date: 11.8.19

NCR: 71991		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11.8.17	#10	Forgot to inverse 4th axis. RC op-error R.L. operator error. LOA	CP 11.08.17 OS1042	Scrap + replace, 1 set (2 supports)	CP 11.8.17	OK 11-08-08	CP 11.08.17 OS1042	6 11/08/17

NOTE: Date & initial all entries

Work Order ID 71991

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Item ID: D2891-1

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Setup Start



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Item Name: 2.25 Support

Start Date: 7/15/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 7/29/2011 Req'd Qty: 20.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

No finish 11.07.15

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

N/A

150

Identify as per dwg & Stock Location:

0.00



Packaging

Memo

0.00

Packaging

11-08-16 (x20)

130 spray part see dwg Rev. B 3M 2216

140 QC 14

11-08-15 (x20)

(20) 11-08-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 71991

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Page 3

Item ID: D2891-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 2.25 Support

Start Date: 7/15/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 7/29/2011 Req'd Qty: 20.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/8/11

11-08-11

20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, July 15, 2011 8:39:36 AM

Page 1

Work Order ID: 71991



Parent Item: D2891-1



Parent Item Name: 2.25 Support

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP C 02.11.26 Added P/O KJ
IPP D 08.03.19 Re-format EC verified: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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DSK076

Manufactured

No

110

Each

14.0000

0.5

10



D2891-1 TURNING DETAIL

29 11.8.5

Location

Loc Qty

Loc Code

MAT060

14

56038

4

69955

10

1

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	71991
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A1	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.188	.188	.188	.188	.188
AB	0.240	0.260		.246	.246	.246	.246	.246
AC	0.115	0.150		.127	.127	.127	.127	.127
AD	0.040	0.060		.055	.055	.055	.055	.055
AE	0.010	0.020		.010	.010	.010	.010	.010
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.290	.290	.290	.290	.290
AH	0.115	0.150		.142	.142	.142	.142	.142
AI	0.454	0.474		.459	.459	.459	.459	.459
AJ	2.779	2.789		2.785	2.785	2.785	2.785	2.785
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.035	1.035	1.038	1.040	1.040
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.262	.262	.262	.262	.262
AO	1.663	1.683		1.674	1.674	1.674	1.674	1.675
AP	0.053	0.073		2.063	2.063	2.063	2.063	2.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: <u>RR</u>	Date: <u>11.8.5</u>
Audited by: <u>A-A</u>	Date: <u>11/08/09</u>
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	
Description: Ø2.250 Support		Part Number: D2891-1	
Inspection Dwg: D2891		Rev: A1	
		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article
 ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	46	47	48	49	50
HAAS Section								
AA	0.188	0.193		.188	.188	.188	.188	.188
AB	0.240	0.260		.246	.246	.252	.250	.251
AC	0.115	0.150		.127	.127	.127	.127	.127
AD	0.040	0.060		.055	.055	.055	.053	.053
AE	0.010	0.020		.010	.010	.010	.010	.010
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.290	.290	.290	.290	.290
AH	0.115	0.150		.142	.142	.142	.140	.140
AI	0.454	0.474		.459	.459	.459	.458	.458
AJ	2.779	2.789		2.785	2.785	2.784	2.784	2.784
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.030	1.030	1.032	1.035	1.033
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.262	.262	.262	.262	.262
AO	1.663	1.683		1.674	1.674	1.674	1.674	1.674
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: 121 Date: 11-08-08

Audited by: B.A Date: 11/08/09

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order:	
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891		Rev: A1	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1/	12	13	14	15
HAAS Section								
AA	0.188	0.193		.188	.188	.189	.189	.189
AB	0.240	0.260		.250	.250	.249	.249	.252
AC	0.115	0.150		.127	.127	.127	.127	.127
AD	0.040	0.060		.053	.053	.056	.055	.051
AE	0.010	0.020		.010	.010	.010	.010	.010
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.290	.290	.290	.290	.290
AH	0.115	0.150		.140	.140	.140	.140	.140
AI	0.454	0.474		.458	.458	.461	.461	.463
AJ	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.036	1.034	1.035	1.033	1.034
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.262	.262	.257	.257	.257
AO	1.663	1.683		1.675	1.675	1.675	1.675	1.674
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: JK Date: 11-08-08

Audited by: H.A Date: 11/08/09

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order:	
Description: Ø2.250 Support		Part Number: D2891-1	
Inspection Dwg: D2891		Rev: A1	
		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ **First Article**
☐ **Prototype**

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	10	217	318	419	520
HAAS Section								
AA	0.188	0.193		.189	.189	.189	.189	.189
AB	0.240	0.260		-.251	-.252	-.252	-.250	-.250
AC	0.115	0.150		.127	.127	.127	.127	.127
AD	0.040	0.060		-.051	-.052	-.052	-.052	-.052
AE	0.010	0.020		-.010	-.010	-.010	-.010	-.010
AF	0.240	0.260		-.250	-.250	-.250	-.250	-.250
AG	0.290	0.310		-.290	-.290	-.290	-.290	-.290
AH	0.115	0.150		.140	.140	.140	.140	.140
AI	0.454	0.474		-.463	-.464	-.464	-.466	-.466
AJ	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AK	0.240	0.260		-.250	-.250	-.250	-.250	-.250
AL	1.002	1.042		1.034	1.032	1.032	1.031	1.031
AM	0.053	0.073		-.063	-.063	-.063	-.063	-.063
AN	0.257	0.262		-.257	-.257	-.257	-.257	-.257
AO	1.663	1.683		1.674	1.675	1.675	1.675	1.675
AP	0.053	0.073		-.063	-.063	-.063	-.063	-.063
AQ	0.022	0.042		-.032	-.032	-.032	-.032	-.032
AR								
AS								
AT								
Accept/Reject								

Measured by: JK **Date:** 11-08-08

Audited by: BA **Date:** 11/08/09

Prototype Approval: **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	

3991

NOTES:

1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRC)
(REF DART SPEC. D6104)

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ± 0.010) UNLESS OTHERWISE NOTED

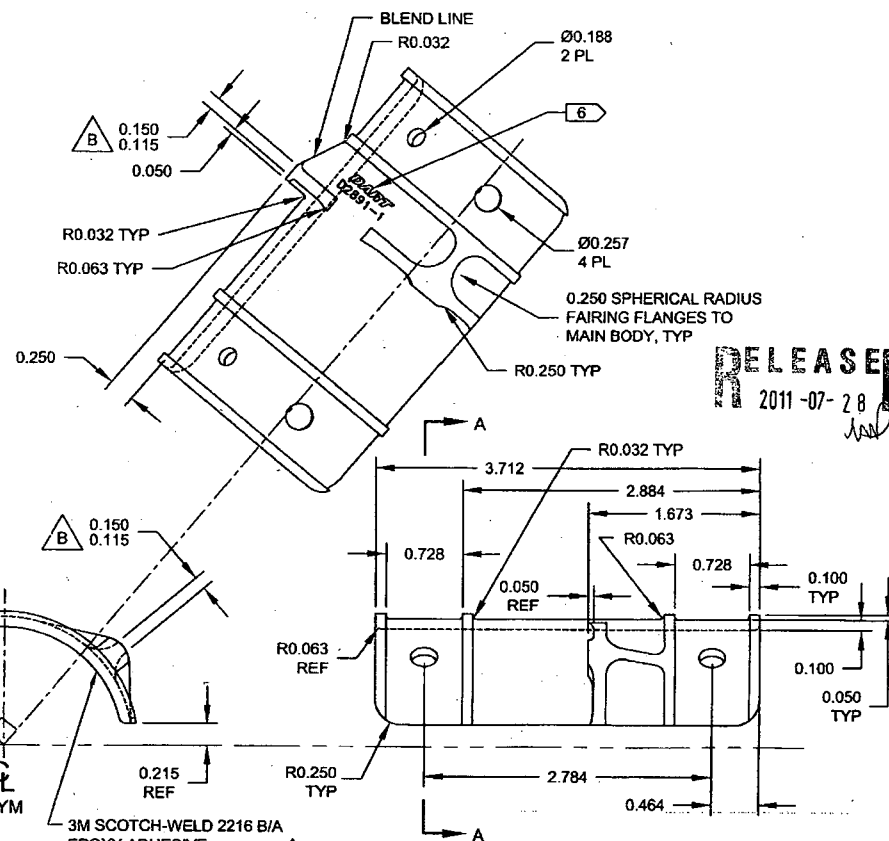
4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

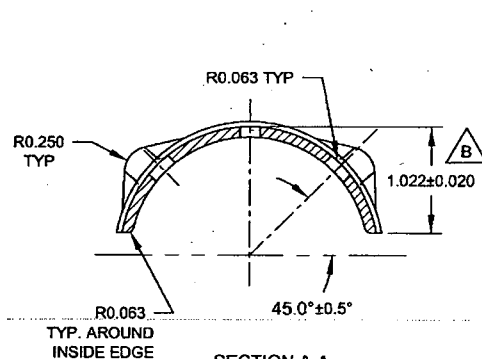
6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING
0.010-0.020 DEEP, PER DART QSI 044 6.3.

7) WEIGHT: 0.38 lb

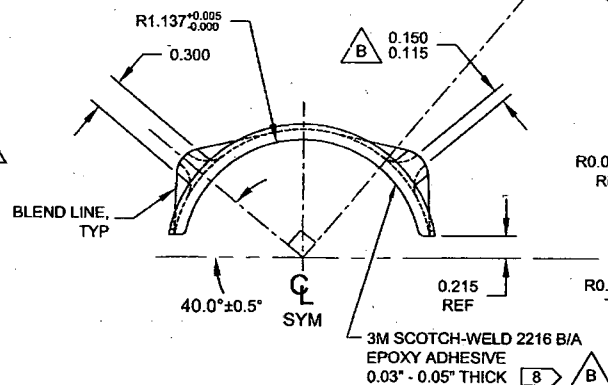
8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.



RELEASED
2011-07-28



SECTION A-A



D2891-1 SUPPORT

B	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION, UPDATE TOLERANCE (ZN D4-1, B4-1, B6-1)	CP	11.07.15
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D2891
REV. B
SHEET 1 OF 1

TITLE: 02.250 SUPPORT
SCALE: NTS

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